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# Working Across Time Zones in Cross-Cultural Student Teams

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#### **ABSTRACT**

The ability to collaborate with fellow workers from different cultures on international projects is a key asset in today's job market. International projects add new dimensions to student teamwork. These types of projects give students the opportunity to participate in collaboration that is remote, cross-cultural, and linguistically challenging. This proposal examines an international term project completed by the computing students of Rose-Hulman Institute of Technology and Bilkent University.

# **Categories and Subject Descriptors**

K.4.0 [Computers and Society]: General.

#### **General Terms**

Documentation, Design, Human Factors

#### Keywords

Cross cultural collaboration, remote collaboration

## 1. INTRODUCTION

Computing students from Bilkent University and the Rose-Hulman Institute of Technology are collaborating on a real-world computing project course. Throughout this course, students learn the procedures and complexities of working on projects that span many time zones and cultures, and have the opportunity to examine the use and impact of computing in a global society. Computing students from both continents work in teams, to analyze, design and develop a software solution for the International Children's Center, a non-governmental organization based in Ankara, Turkey.

### 2. WHAT DID STUDENTS LEARN?

Students from the Rose-Hulman Institute of Technology visit Bilkent University twice – once during the analysis stage and once at the end of the semester for the implementation; all other collaboration is done remotely. One of the main challenges faced by students is collaborating remotely, across time-zones. Due to a six hour time difference, difficulties faced include finding appropriate times for communication and collaboration. One

strategy used to overcome this difficulty is to arrange a weekly meeting time that is appropriate for both sides in order to provide updates and progress. For the communication between team members Skype, MSN Messenger and Moodle course management platform tools were used in this project. Students learn that even when team members are separated by thousands of miles it is possible to work together on one project thanks to online communication tools.

For each phase of the project, students prepare documents using templates. While creating the documents Google docs was used by team members to simultaneously revise the documents. One challenge faced was how to share documents between the teams, in order for everyone to access the correct versions. From this challenge, an additional lesson learned was that all project documents should be collected in a central repository which each team member can access, to update, revise and add new documents. For this purpose, an SVN repository was used in this project.

For both native and non-native English speakers there were also linguistic challenges. For non-native speakers, difficulties include speaking another language for extended periods and express themselves clearly. For the native speakers, difficulties include communicating in order to be clearly understood, and understanding the accent of the non-native speakers. To overcome the difficulties strategies included questioning when they did not understand clearly and drawing/diagramming difficult concepts. Native speakers talked slowly and choose synonymous words to establish a healthy communication. During the visit to Bilkent, both groups had a chance to improve their communication skills and to learn strategies that can be applied in future projects. Besides gaining communications skills, both sides had a chance to learn new cultures, and learn about the differences in their cultures. In conclusion, as a result of the international term project, students in cross-cultural teams have the opportunity to learn valuable lessons about successfully collaborating across time-zone and culture.

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